

Appln. No.: 09/646,665
Amendment Dated: April 14, 2004
Reply to Office Action of: December 17, 2003

MAT-8014US

Remarks/Arguments:

By this Amendment, Applicants have amended claims 1, 2, 7, 10, 14, and 16. Claims 1-16 are pending.

Information Disclosure Statement

With respect to the Information Disclosure Statement filed September 20, 2000, the Examiner did not consider JP 02-693758 because a "legible copy" of this reference was not included. Applicants are therefore concurrently filing a Supplemental Information Disclosure Statement including this Japanese Reference which was not considered by the Examiner in the Information Disclosure Statement filed September 20, 2000. The Examiner's consideration of the reference is respectfully requested.

Objections to the Specification and Claims

At numbered paragraphs 2 and 3 of the Office Action, the Examiner objected to the specification and claims 1 and 14 on informal grounds. Applicants have amended the specification and the claims to overcome the basis for these objections.

Claim Rejections Under Section 112

Claims 1, 2, 7, 14 and 16 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for reasons set forth in numbered paragraph 5 of the Office Action. Applicants have amended claims 1, 2, 7 and 14 to overcome the basis for the Section 112, second paragraph, rejections. As to claim 16, Applicants contend that no amendment is necessary with respect to the word "block" as this

word would be readily understood by one skilled in the art having read the subject application, particularly the portion of the application found at page 19, lines 16-22.

Based on the foregoing remarks, Applicants respectfully submit that all claims are in full compliance with Section 112.

Claim Rejections Under § 102

Claims 1, 2 and 12-16 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Ayerst. By this Amendment, Applicants respectfully traverse the Section 102(e) rejection.

Claim 1 is an independent claim to which claims 2-13 and 15-16 depend. Claim 14 is also an independent claim.

Turning first to independent claim 1, it is directed to a method of transmitting a packet data to which a sync pattern is added before transmission. The method defined by claim 1 includes the following steps:

- generating a fixed pattern comprising 'm' words ('m' is an integer greater than 0);
- **generating variable patterns that are predetermined**, each pattern comprising 'n' words ('n' is an integer greater than 1);
- generating a sync pattern comprising 'q' words ('q' = m + n) formed by combining the fixed pattern and the variable pattern; and

- controlling the step of generating a sync pattern for making a bit structure included in at least two consecutive packets include different types of variable patterns.

Applicants respectfully submit that the method defined by claim 1 is patentably distinguished from the Ayerst Patent at least based on the requirement of generating variable patterns that are predetermined, as set forth in Applicants claim 1 (hereinafter generally referred to as the "Predetermined Variable Pattern Feature" of Applicants' claimed invention). In other words, the Ayerst Patent does not teach or suggest the Predetermined Variable Pattern Feature of Applicants' claimed invention.

Applicants amendment of claim 1 to include the Predetermined Variable Pattern Feature is not the addition of new matter, but is based on the application as originally filed. In this connection, Applicants point the Examiner to the originally filed specification at page 14, line 19 to page 15, line 17.

As Applicants' subsequent discussion will point out, the Ayerst Patent relates to a preamble packet composed of a pseudo random pattern, but Applicants' claimed invention does not relate to a random pattern. In contrast, Applicants' claimed invention relates to a predetermined variable pattern.

The Ayerst Patent at Figure 1 describes a fixed system receiver 107 which operates in a synchronization mode which is one of a synchronous mode and asynchronous mode. A system controller 102 transmits a response command which includes a preamble indicator corresponding to the synchronization mode of the fixed system receiver 107. A select call radio 106 receives and decodes the

preamble indicator and generates a response message data unit 312. The synchronous header data packet 660 (Figures 6 and 7) is preceded by a synchronizing packet 650 when the preamble indicator indicates the asynchronous mode and is not preceded by the synchronizing packet 650 when the preamble indicator indicates the synchronous mode.

More specifically, Applicants contend that the method and apparatus for optimizing receiver synchronization in a radio communication system as disclosed in the Ayerst Patent relies on a preamble packet composed of a pseudo random pattern ending with consecutive 1's. This is in sharp contrast to Applicants' claimed invention. The variable pattern of Applicants' claimed invention is not a random pattern but is formed by selecting among plural data patterns that are predetermined, i.e., the Predetermined Variable Pattern Feature. Thus, a sync pattern with very high reliability is obtained as a result of Applicants' claimed invention. Further as a result of Applicants' claimed invention, there is no need for complex circuitry for generating the random pattern. For example, it is possible to obtain the variable pattern by using a small capacity memory. It is also possible with Applicants' claimed invention to obtain the sync pattern generation by using very simple circuitry. The Predetermined Variable Pattern Feature and its advantages are discussed throughout the specification, including, for example, at page 14, line 19 to page 15, line 17 of the originally filed specification.

As noted above, the Ayerst Patent discloses a preamble packet composed of a pseudo random pattern ending with consecutive 1's. But, the "preamble" is used for clock-recovery at the receiving apparatus. It is used for reproducing clock signals at the receiving side. In contrast, Applicants' claimed invention discloses a

"sync pattern" that is used for achieving a synchronous packet at the receiving side. The sync pattern is located at the beginning of the communication stream and is used for obtaining a synchronous situation at the receiving side.

At least based on the lack of teaching or suggestion of the Predetermined Variable Pattern Feature, claim 1 and the claims dependent thereon are patentably distinguished from the Ayerst Patent. Applicants further contend that claim 14 has been similarly amended to include the Predetermined Variable Pattern Feature and it too is patentably distinguished from the Ayerst Patent. Applicants therefore request that the Section 102(e) rejection based on the Ayerst Patent be withdrawn.

Claim Rejections Under § 103

Claims 3-6 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Ayerst; and claims 8-11 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Ayerst in view of Lawrence. By this Amendment, Applicants respectfully traverse the Section 103(a) rejections.

Claims 3-6 and 8-11 are dependent on claim 1 and therefore include the Predetermined Variable Pattern Feature. Based on this feature, these dependent claims are patentably distinguished from the Ayerst Patent. It is Applicants' further contention that the Lawrence Patent does not rectify the deficiencies heretofore discussed with respect to the Ayerst Patent.

The Lawrence Patent relates in general to a system and method for maintaining timing synchronization in a digital video network, in conjunction with a digital video and data delivery system. The system and method of Lawrence concerns the delivery of digital video content, bi-directional data services and

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telephone services to an end user over a communication channel. The channel is typically the copper wire pair that extends between a telephone company's central office and a residential premises, but may be any communication medium that supports the communication of compressed digital video, bi-directional data and telephone service.

The Lawrence Patent has been cited primarily with respect to its disclosure of a customer premises configuration at Figure 16, wherein digital video and data enter a customer premises 1300 from a central office 400 by a communication channel 16. But nowhere in the Lawrence Patent is there any teaching or suggestion of the Predetermined Variable Pattern Feature of Applicants' claimed invention. Thus, either alone or in combination, the Ayerst Patent and the Lawrence Patent do not teach or suggest the invention of Applicants' claim 1 to which claims 3-6 and 8-11 depend.

Based on the foregoing remarks, Applicants request that the Section 103(a) rejections be withdrawn.

Allowable Subject Matter

Applicants acknowledge with appreciation the Examiner's finding that claim 7 includes allowable subject matter and would be allowed if rewritten in independent form. Applicants respectfully submit that there is no need to rewrite claim 7 since it is directly dependent on claim 1 which is itself in condition for allowance.

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In view of the foregoing remarks and amendments, Applicants respectfully submit that claims 1-16 are in condition for allowance. Reconsideration and allowance of all pending claims are respectfully requested.

Respectfully submitted,



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Dated: April 14, 2004

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April 14, 2004

